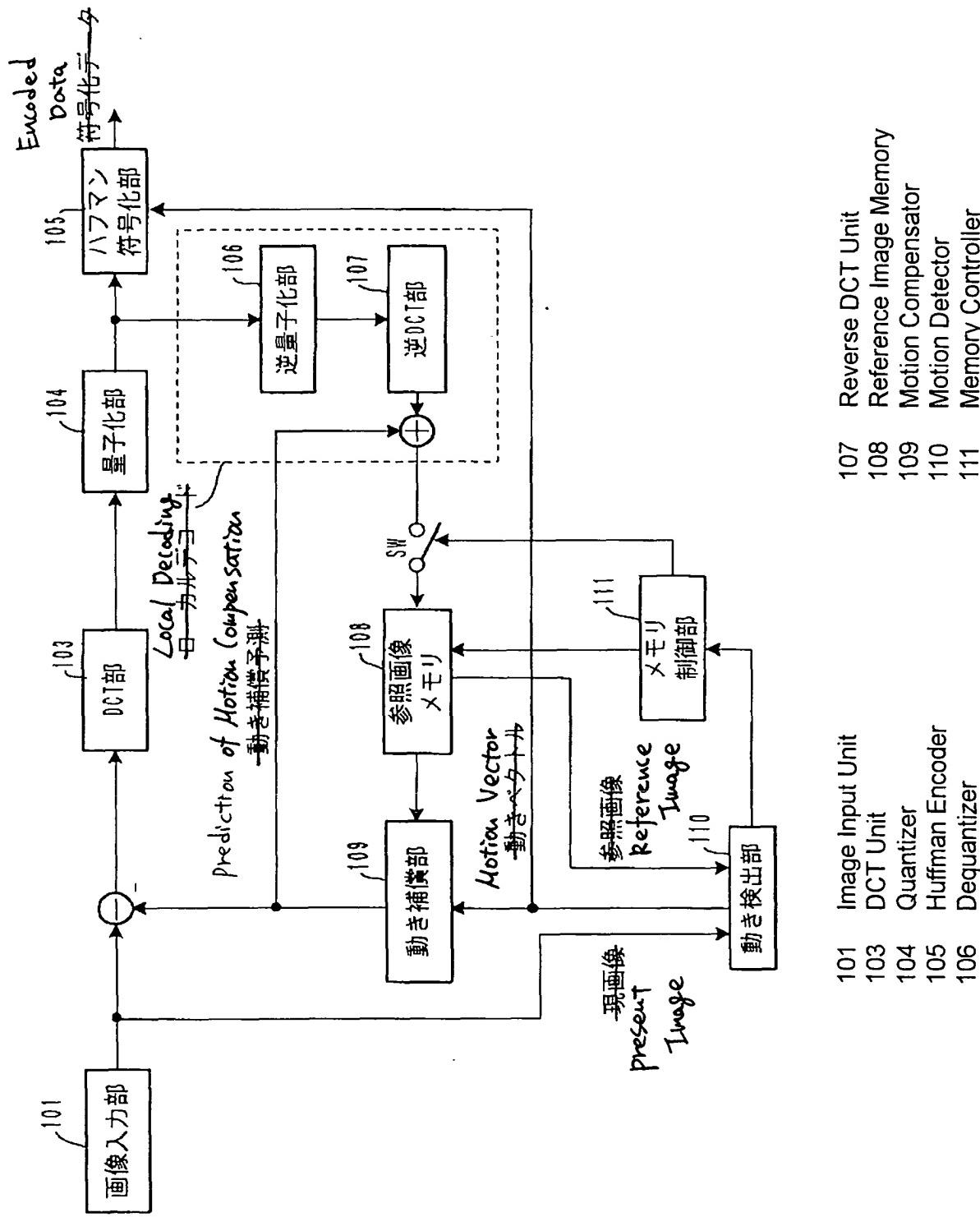


十書類名 図面

図1 Fig. 1



- | | |
|-----|------------------------|
| 101 | Image Input Unit |
| 103 | DCT Unit |
| 104 | Quantizer |
| 105 | Huffman Encoder |
| 106 | Dequantizer |
| 107 | Reverse DCT Unit |
| 108 | Reference Image Memory |
| 109 | Motion Compensator |
| 110 | Motion Detector |
| 111 | Memory Controller |

Fig. 2

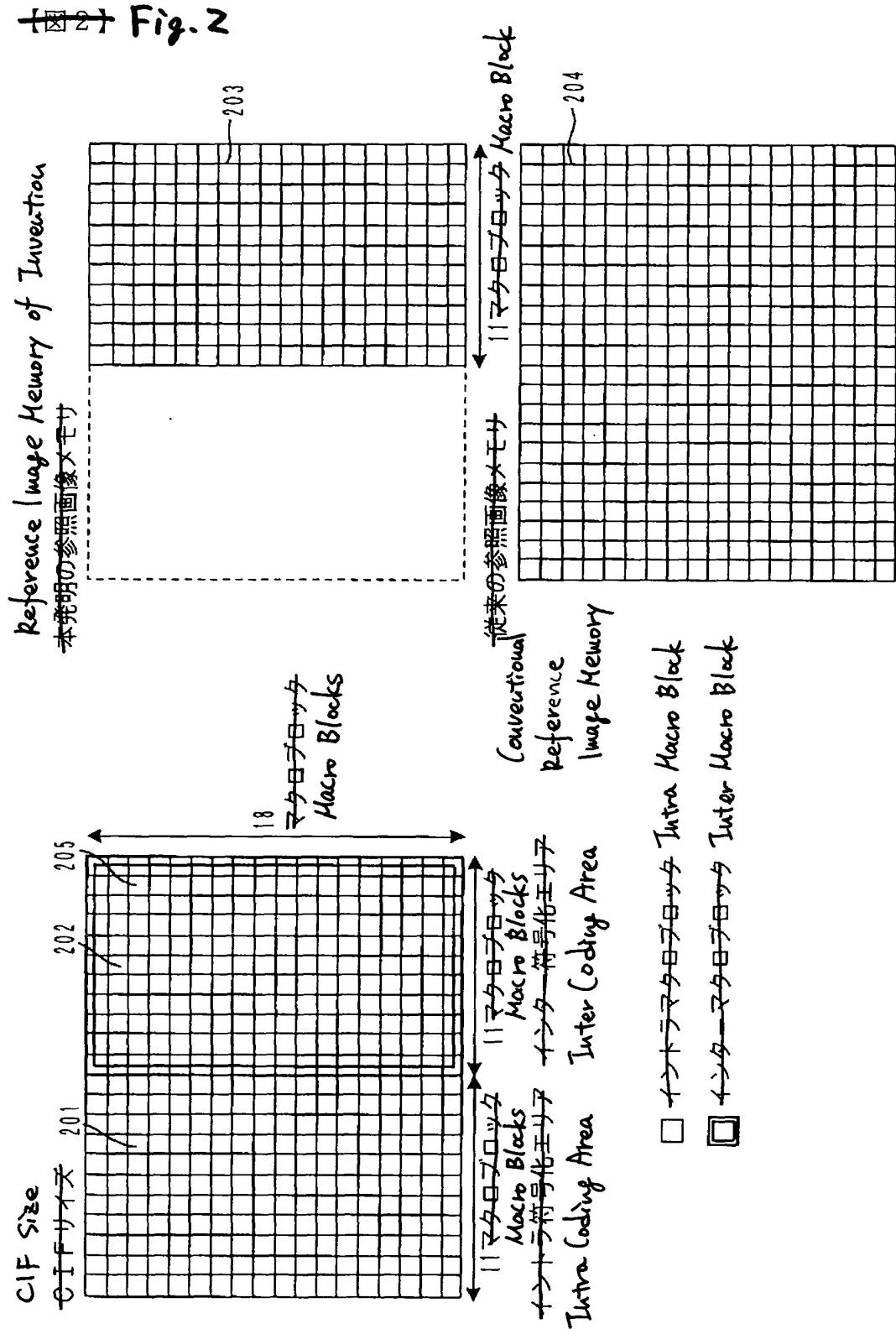
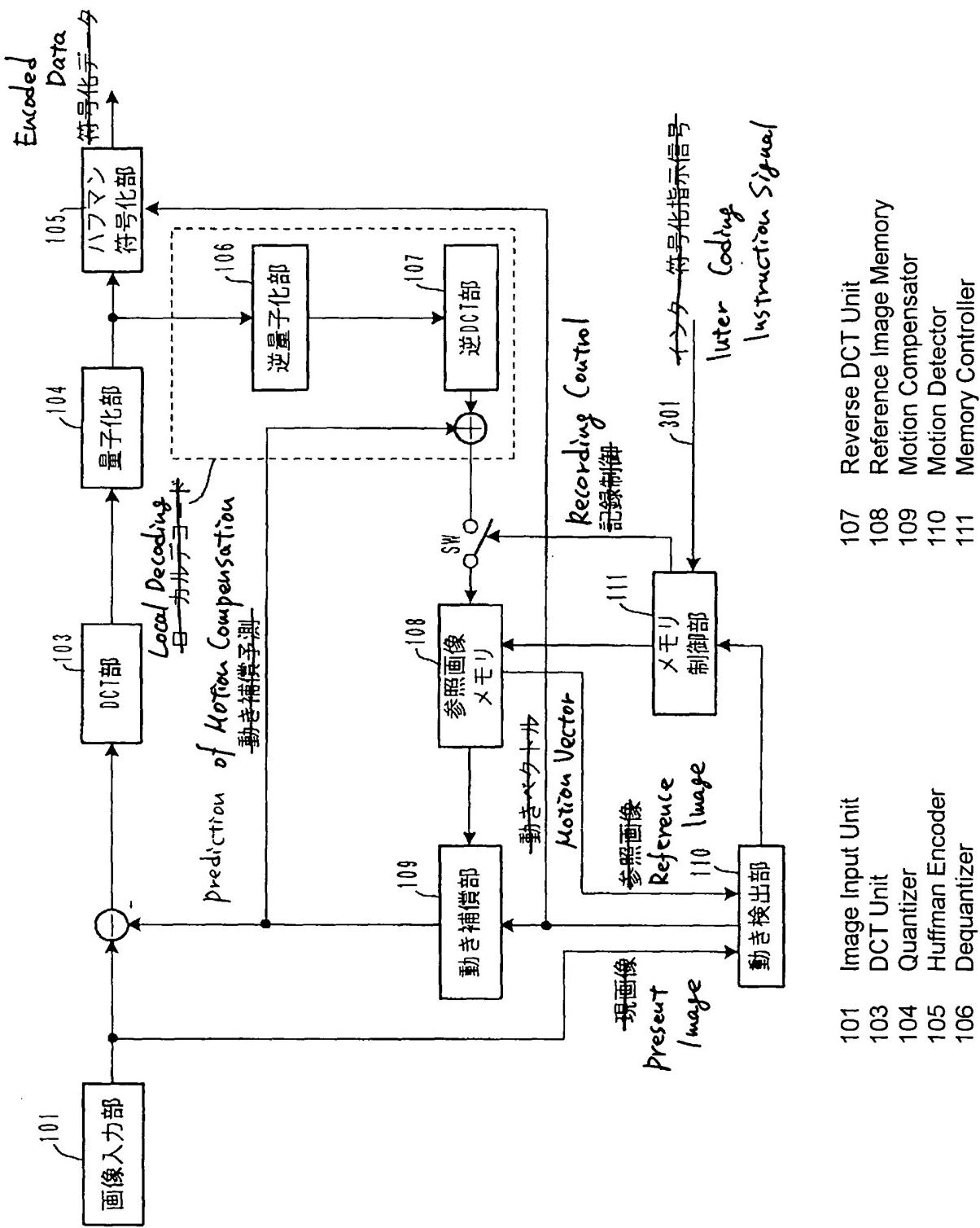
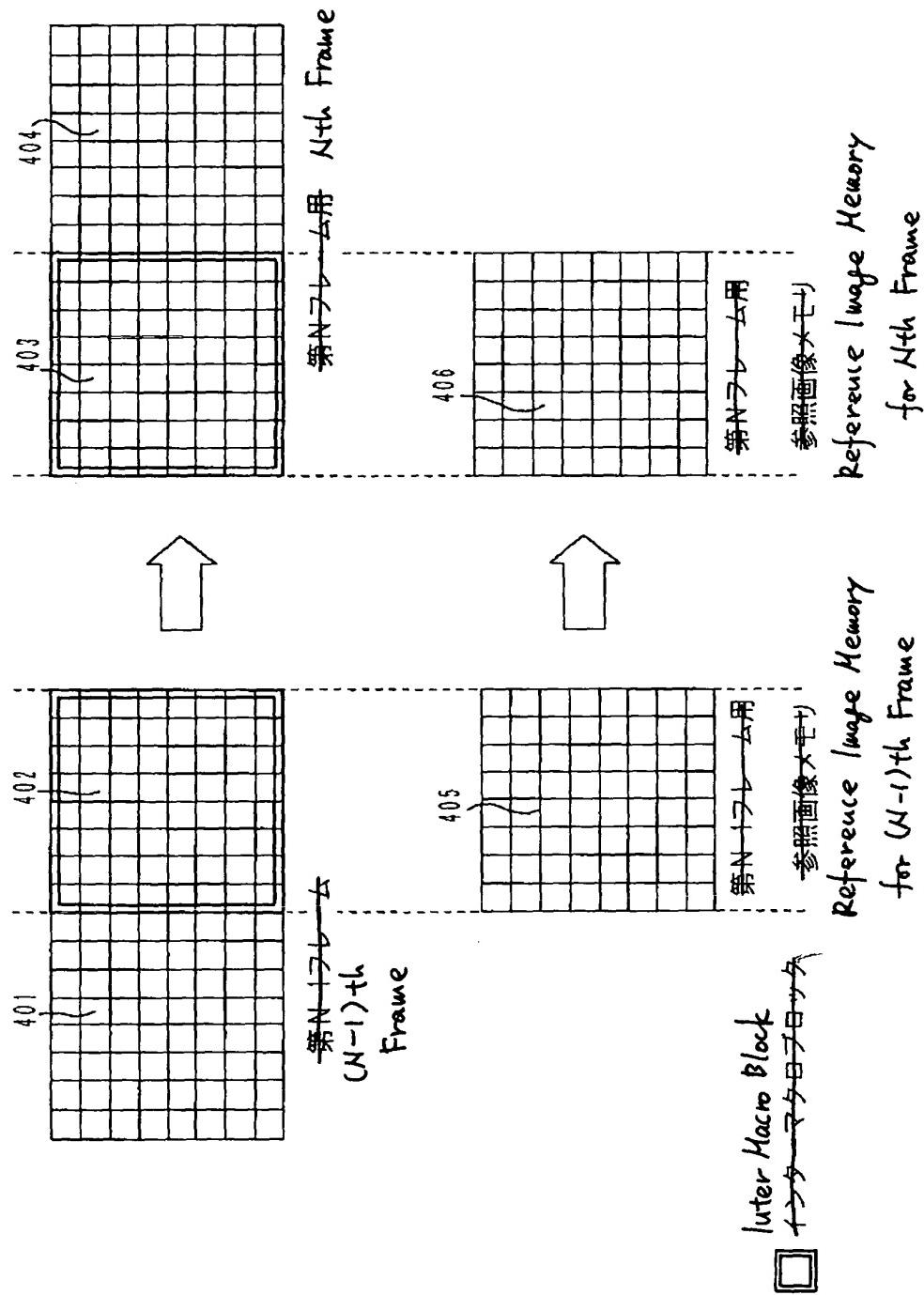


図3 Fig.3



+図4 Fig. 4



~~+5~~ Fig. 5

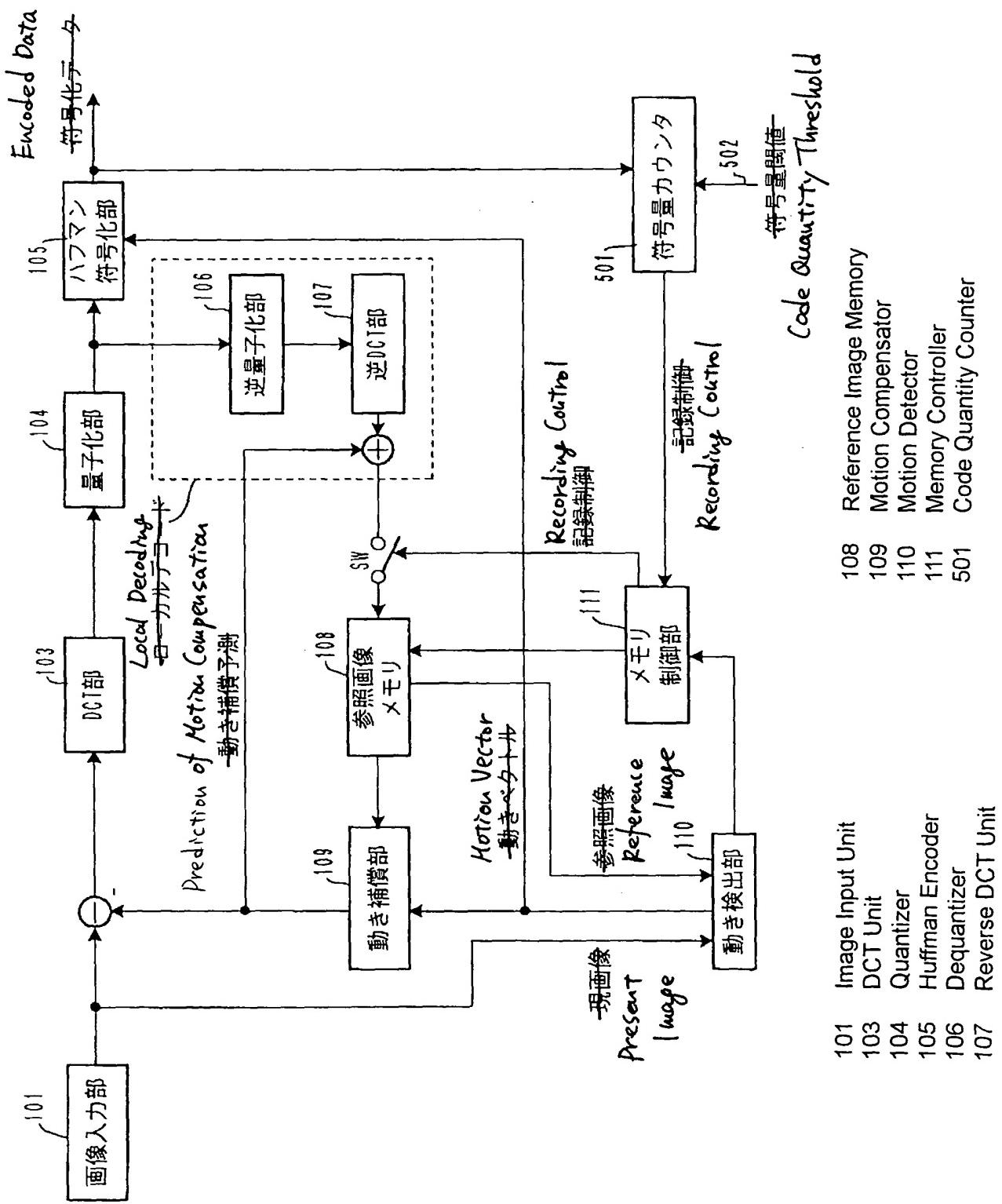


図6 Fig.6

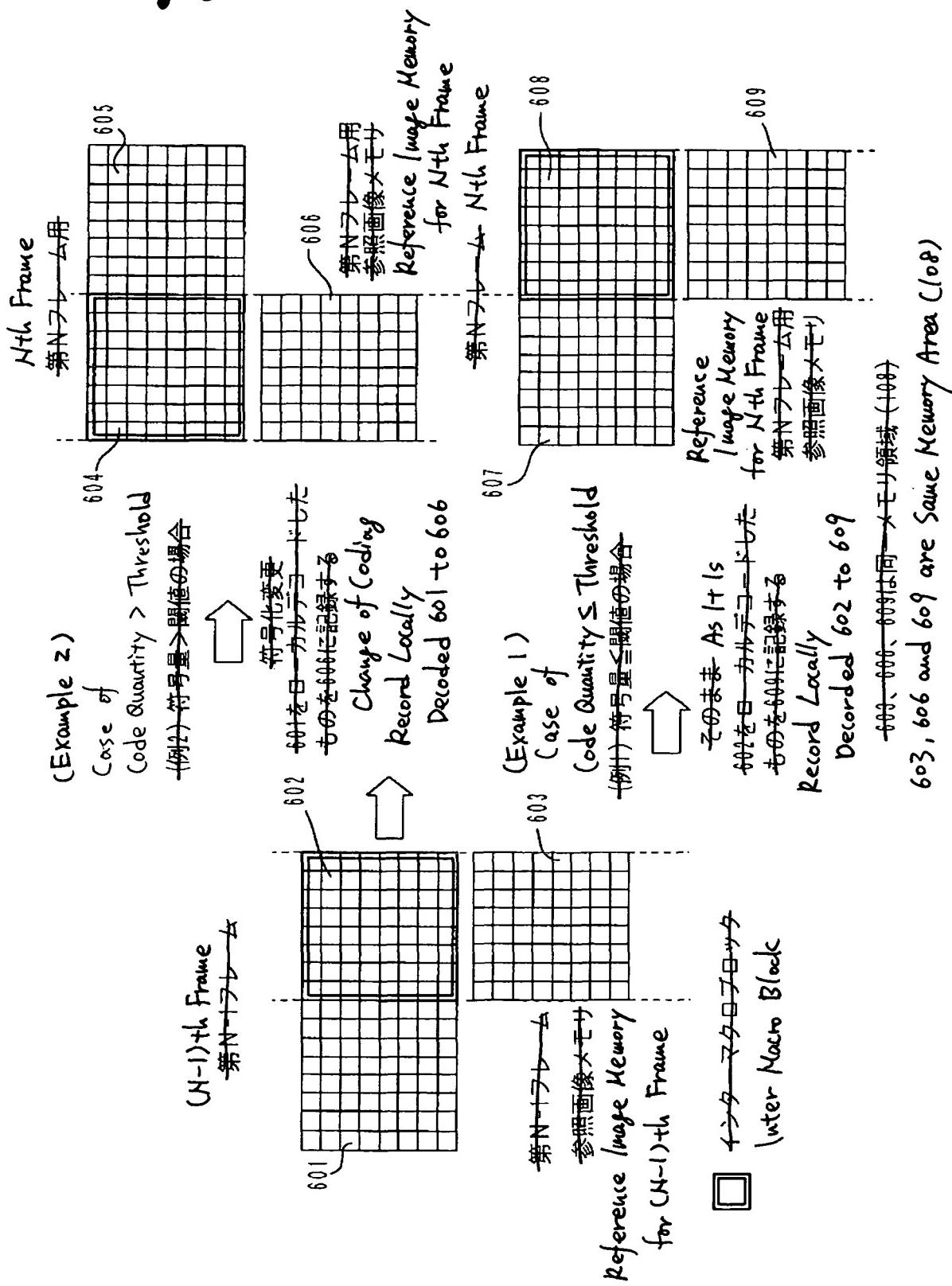
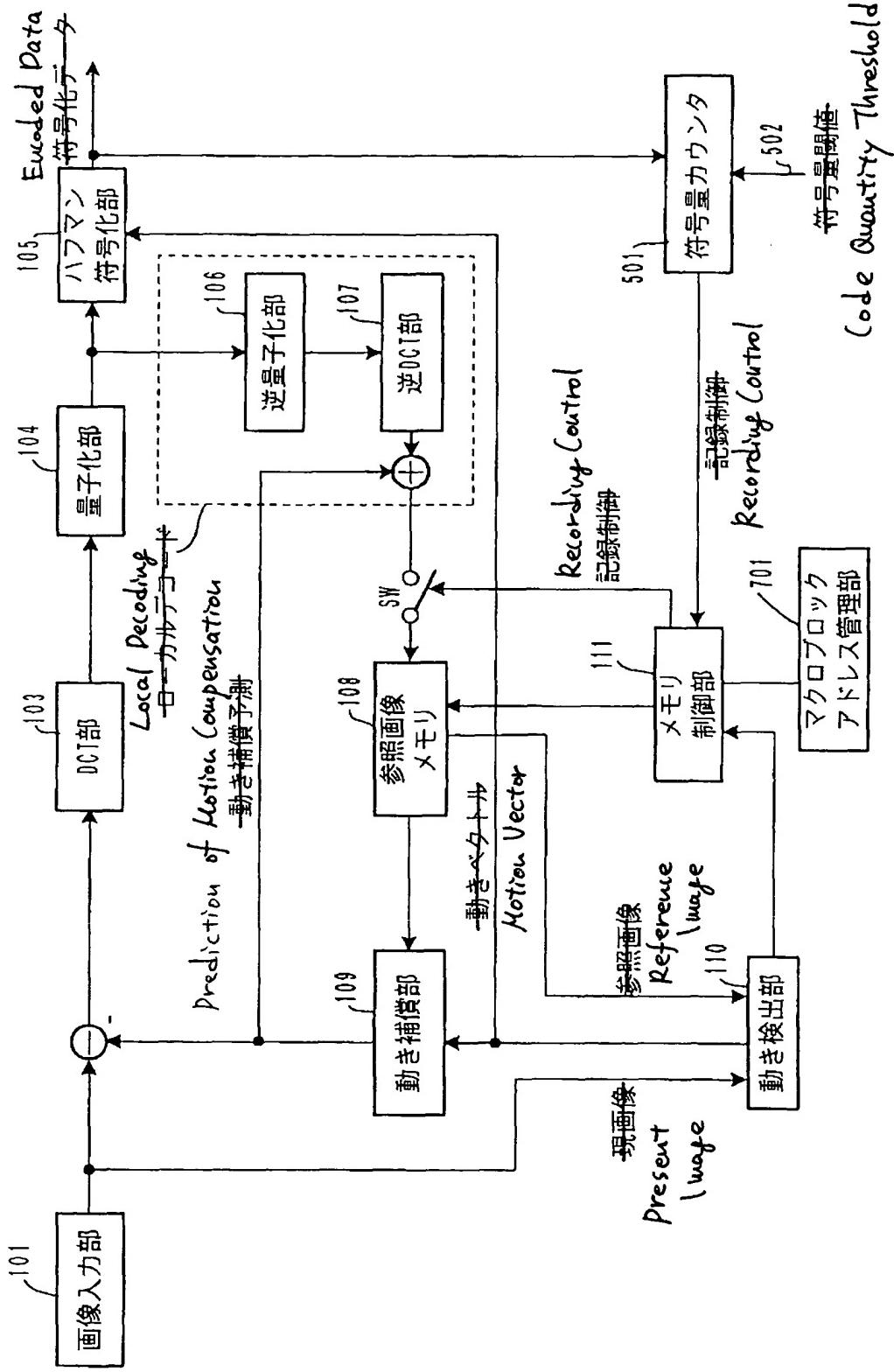


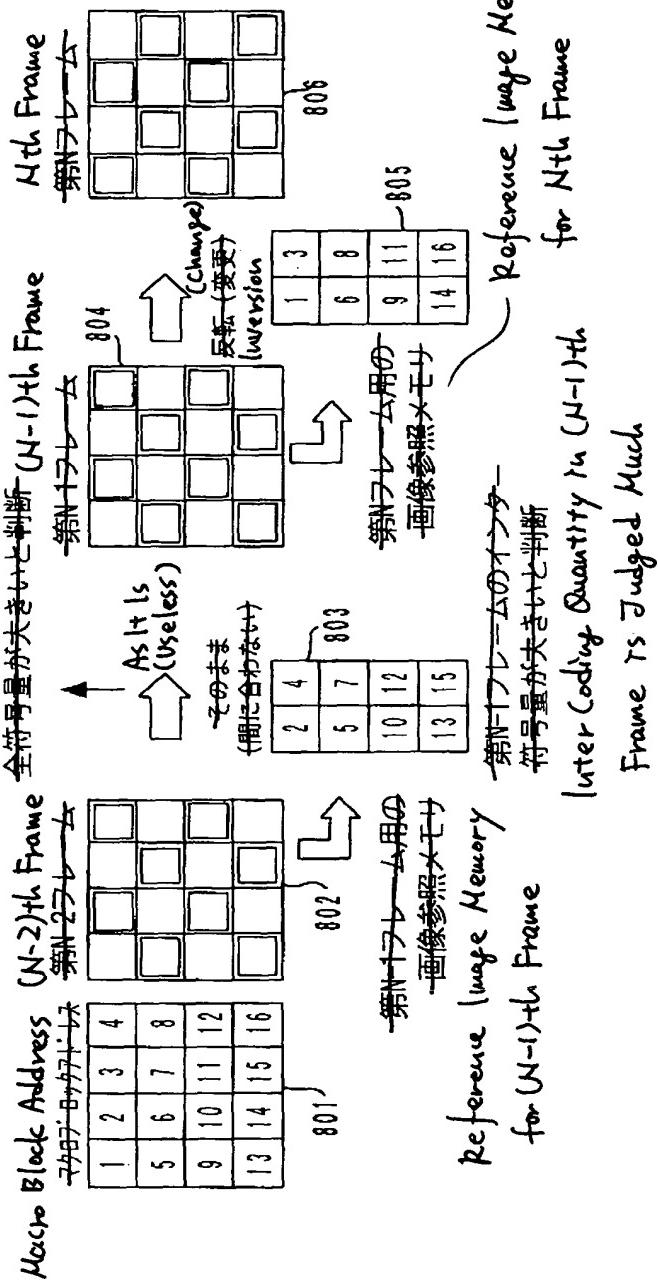
図7 Fig. 7



101	Image Input Unit
103	DCT Unit
104	Quantizer
105	Huffman Encoder
106	Dequantizer
107	Reverse DCT Unit
108	Reference Image Memory
109	Motion Compensator
110	Motion Detector
111	Memory Controller
501	Code Quantity Counter
701	Macro Block Address Manager

† Fig. 8

(Example 1)
 Judge Based upon Total Quantity
 Codes in (N-2)th Frame
 (N-1)th Frame の全符号量を判断



十図9 → Fig. 9

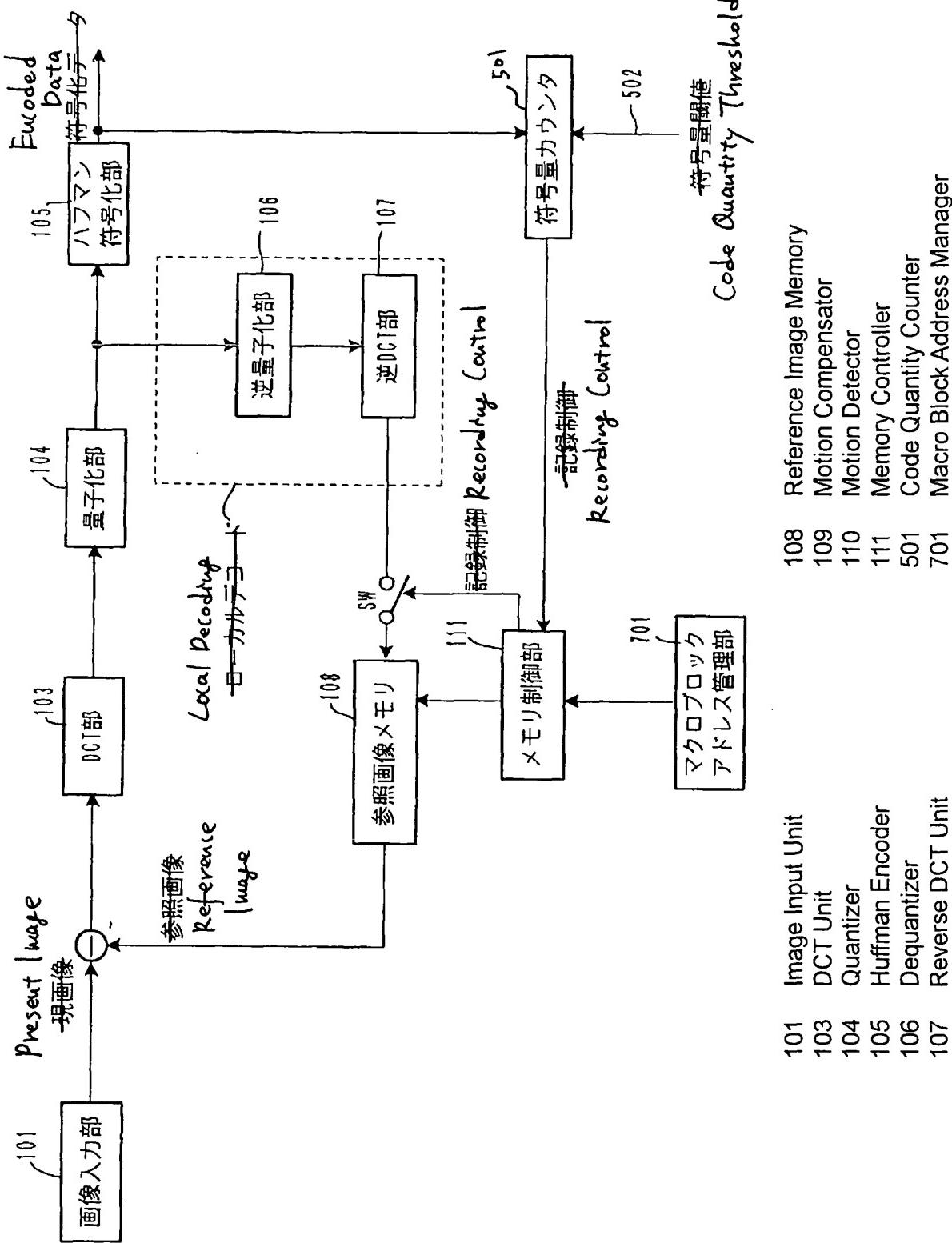
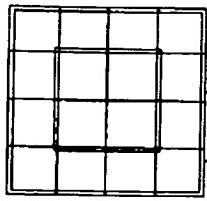


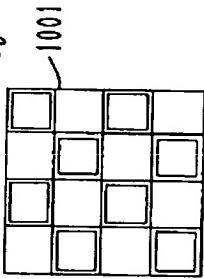
図10 Fig. 1

Center High
Usage Quality Type
(5) 中央高品質型



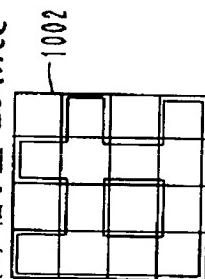
1009

(1) 千鳥型 Staggered Type



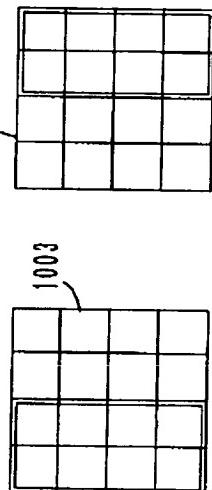
1001

(2) 格子型 Lattice Type



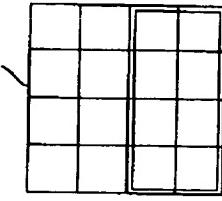
1002

(3) 分割型 Division Type

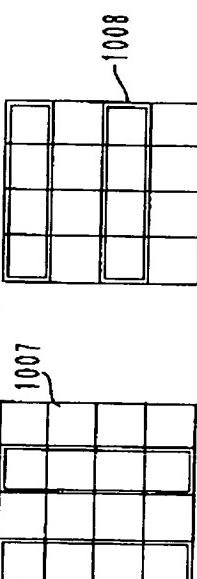


1003

1004
1005

1006
1007

(4) ストライプ型 Stripe Type



1008

Intra Macro Block
インターマクロブロック
Inter Macro Block
インターマクロブロック

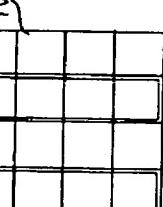
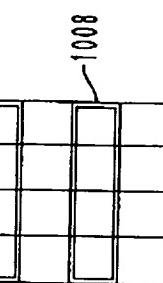
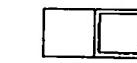
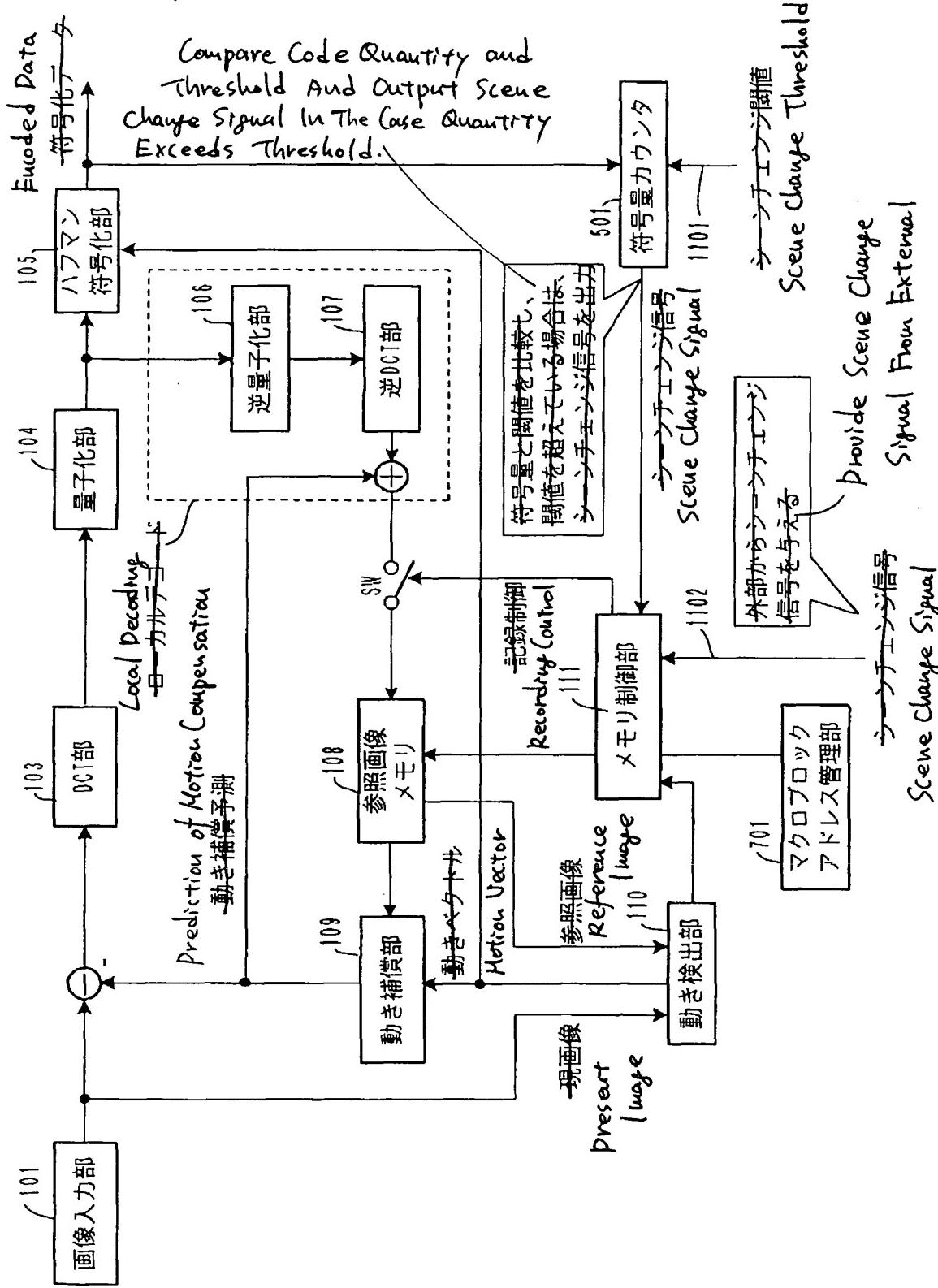
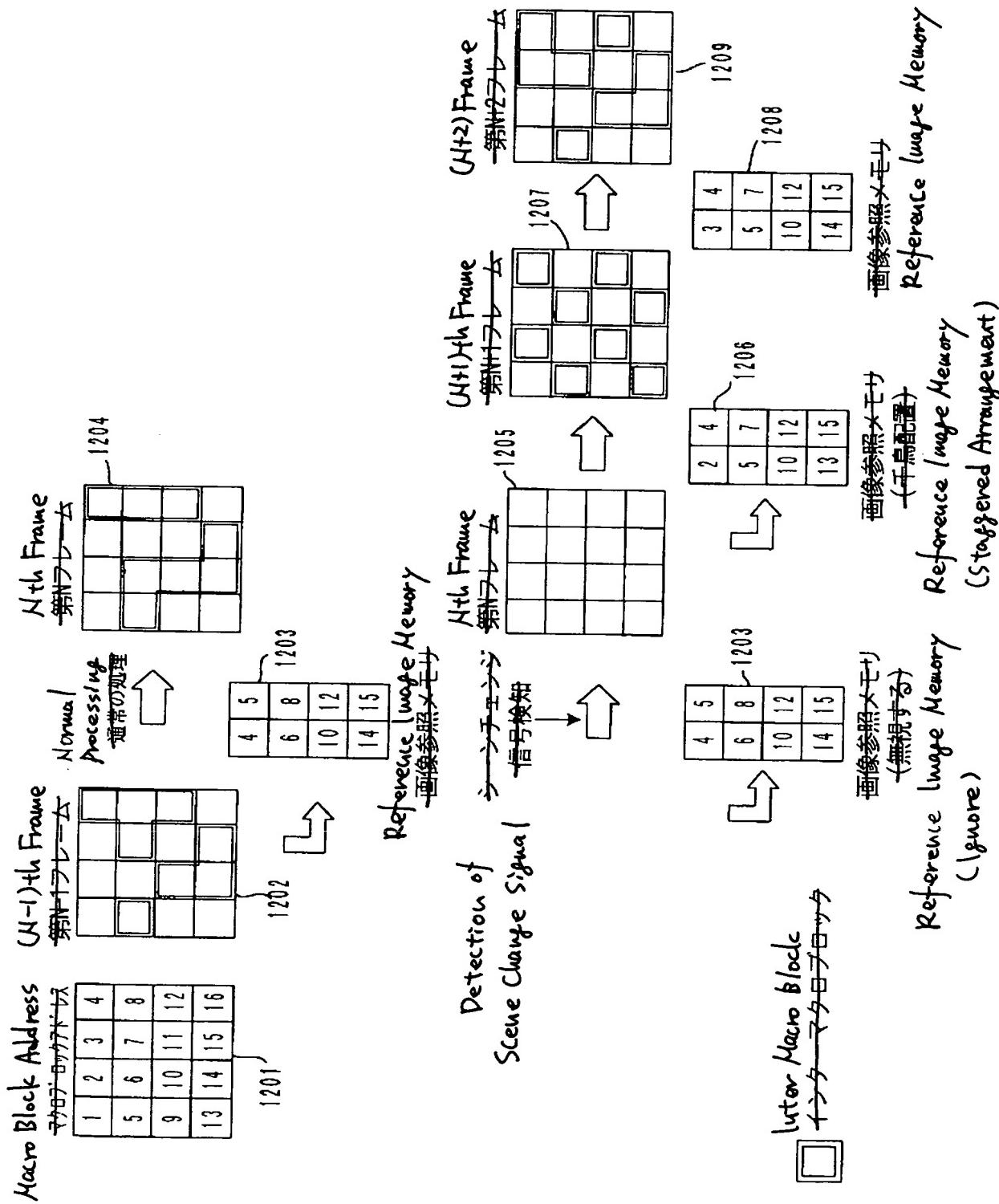


図11 Fig. 11



101	Image Input Unit
103	DCT Unit
104	Quantizer
105	Huffman Encoder
106	Dequantizer
107	Reverse DCT Unit
108	Reference Image Memory
109	Motion Compensator
110	Motion Detector
111	Memory Controller
501	Code Quantity Counter
701	Macro Block Address Manager

図12 Fig.12



~~Fig. 13~~ Fig. 13

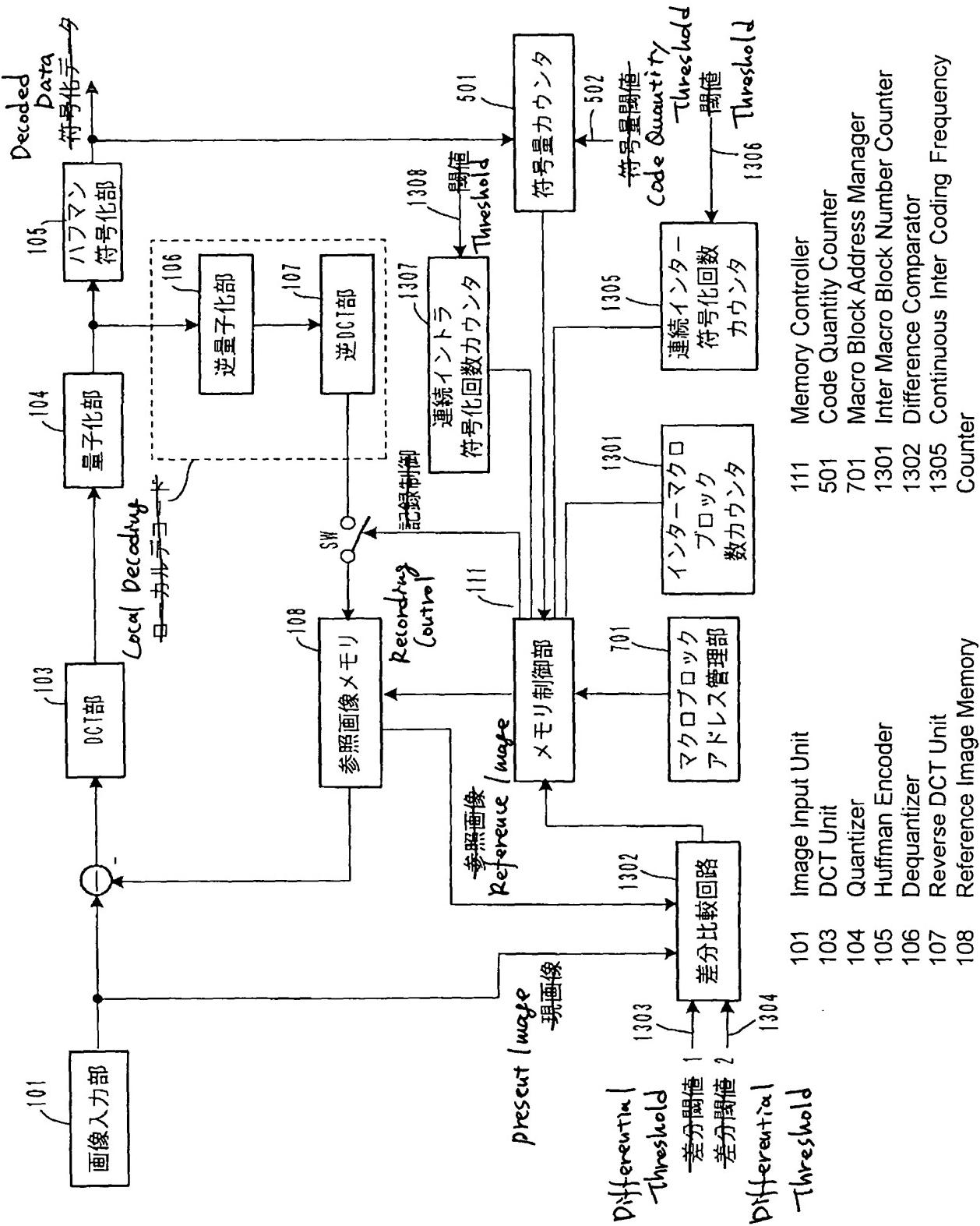


図14 Fig.14

(Example 1) Differential Threshold = 50
+例+ 差分閾値 = 50

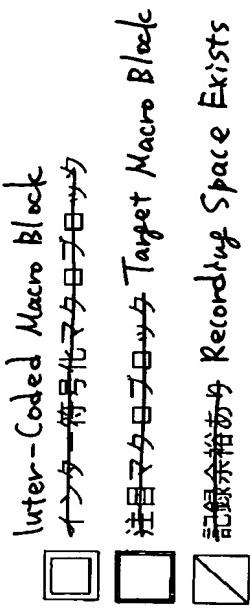
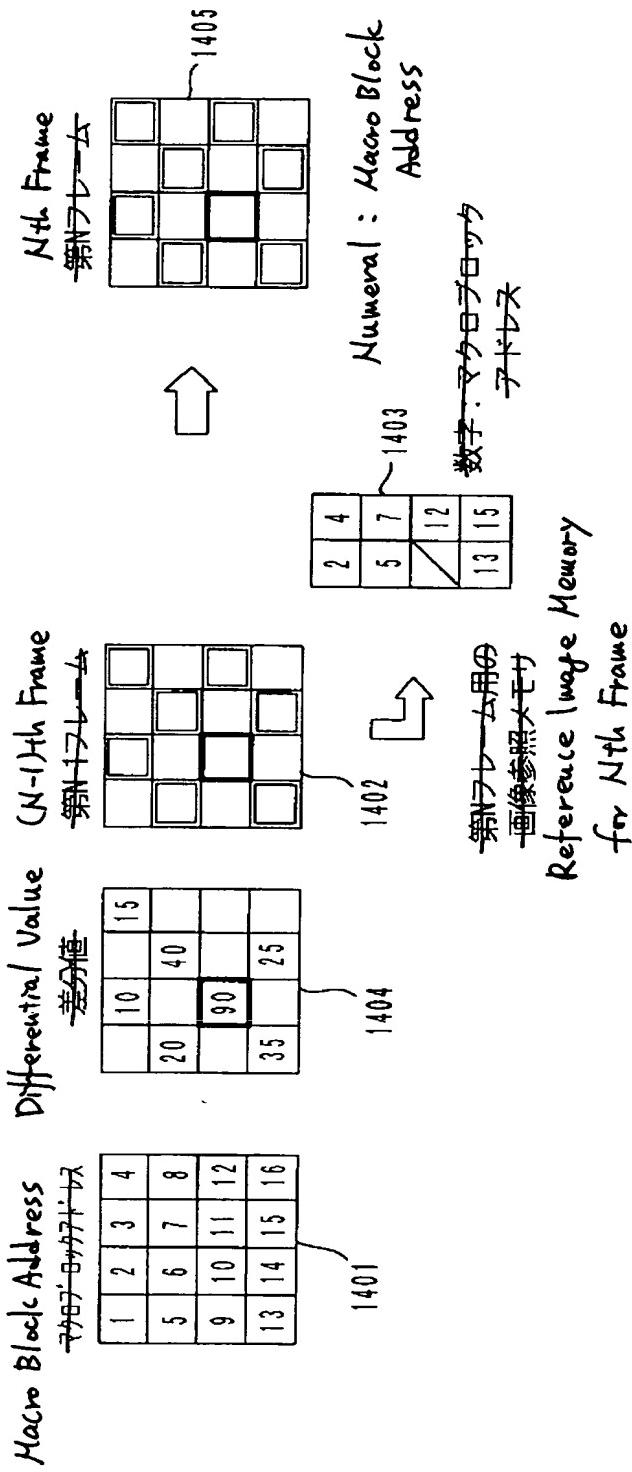


図 15 | Fig. 15

(Example 2) Differential Threshold = 50
 (例2 差分閾値 = 50)

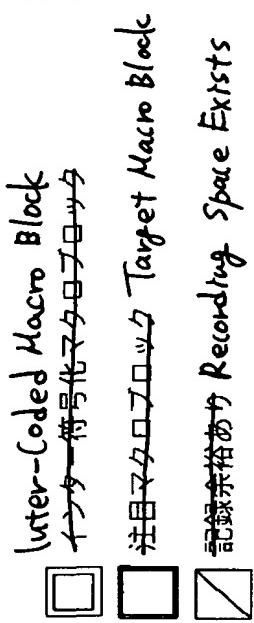
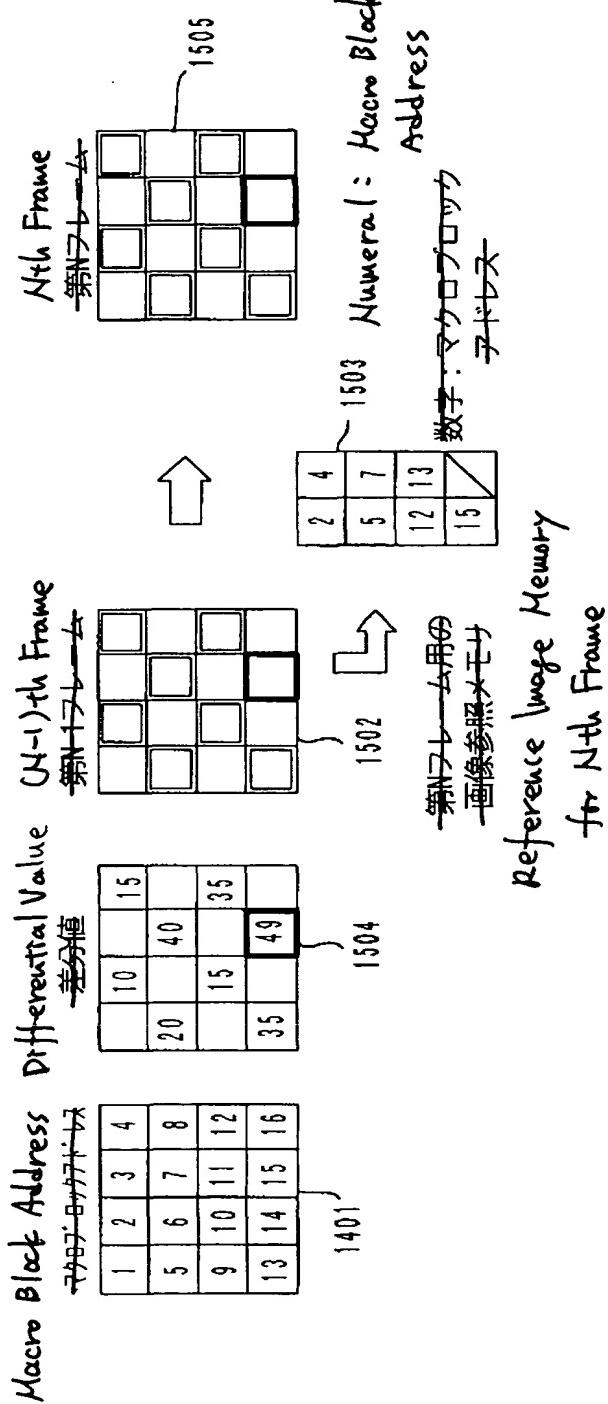
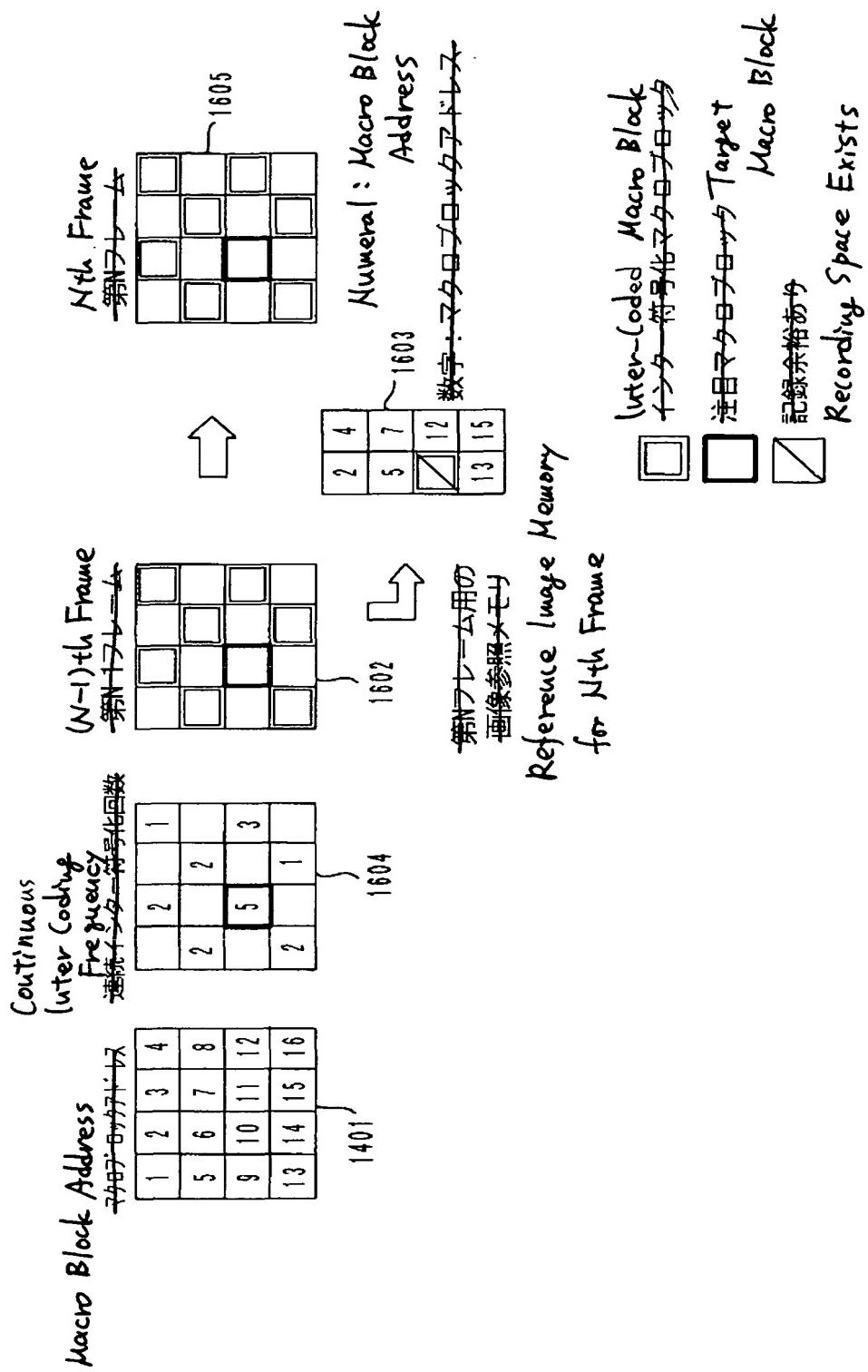


図16 Fig.16

(Example 3) Inter Coding Frequency Threshold = 5
 (例3) インターコード符号化回数閾値 = 5



~~Fig. 17~~ Fig. 17

(Example 4) Differential threshold $3 = 15$
~~(例題4) 差分閾値 $3 = 15$~~

用の
参考照
像

Reference Image Memory
for Nth Frame

2	4	1703
5	7	
10	12	
13	8	
		Numeral : Macro Block

<input type="checkbox"/>	Target	Macro Block	Recording Space Exists
<input checked="" type="checkbox"/>	注目マクロブロック	Macro Block	記録余裕あり

記録余裕あつた
Recording

Recording Space Exists

図18 Fig. 18

(Example 5) Code Quantity Threshold = 50

(例5) 符号量の閾値 = 50

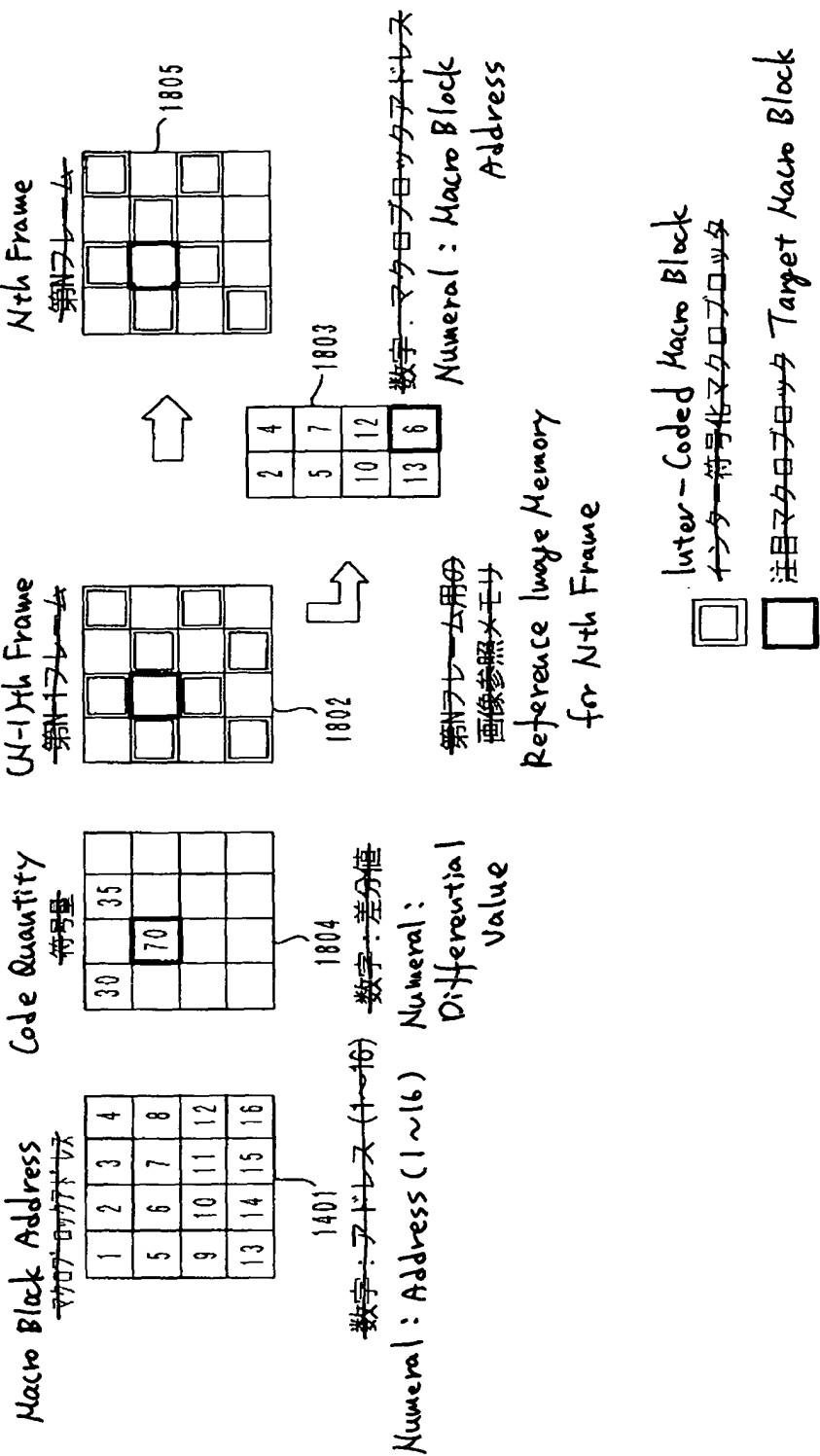


図19 Fig.19

(Example 6) Ultra Coding Frequency Threshold = 5

(例6) インタラクションの閾値 = 5

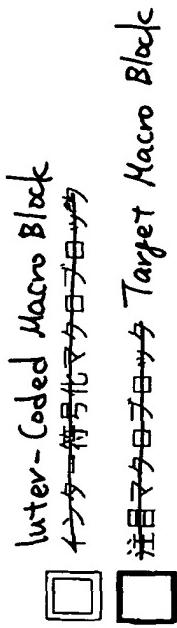
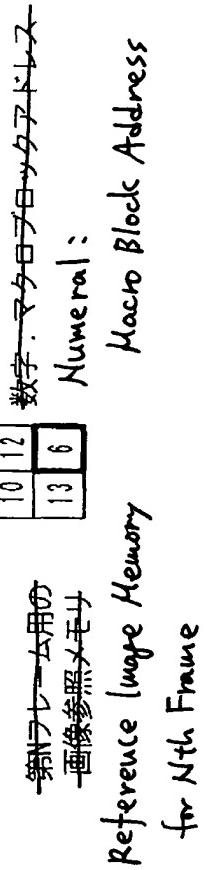
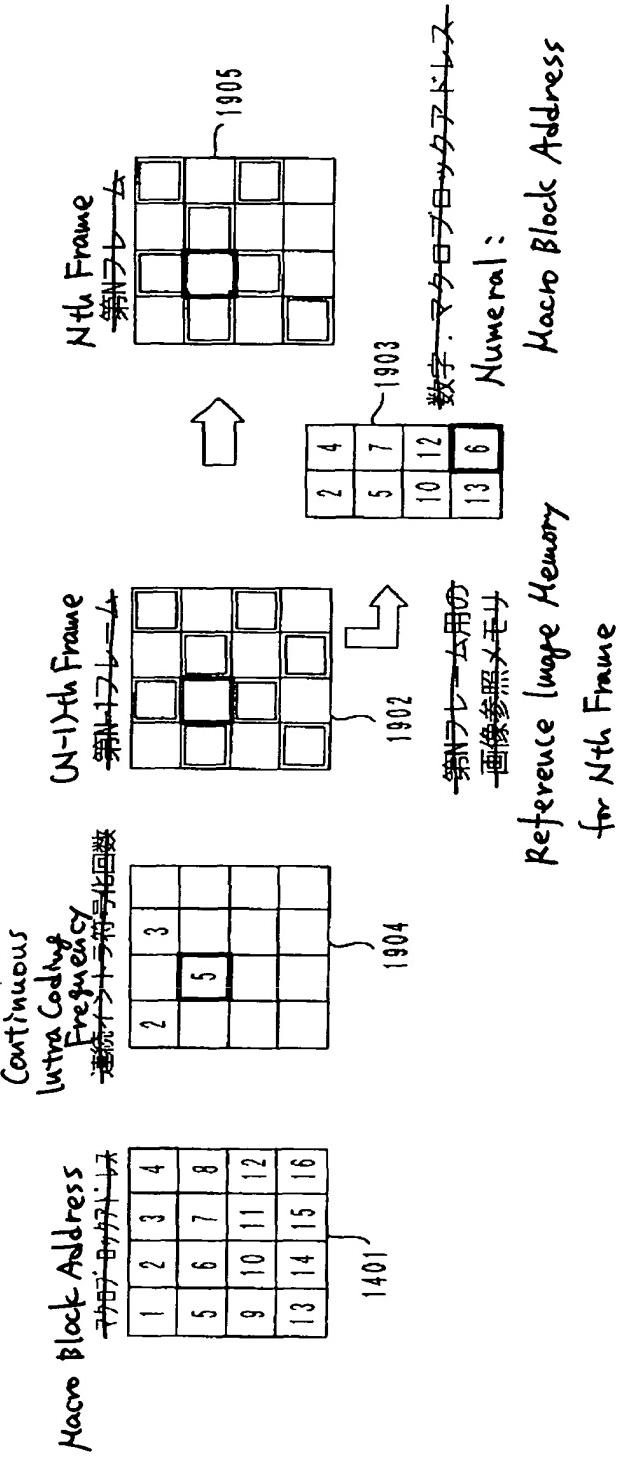
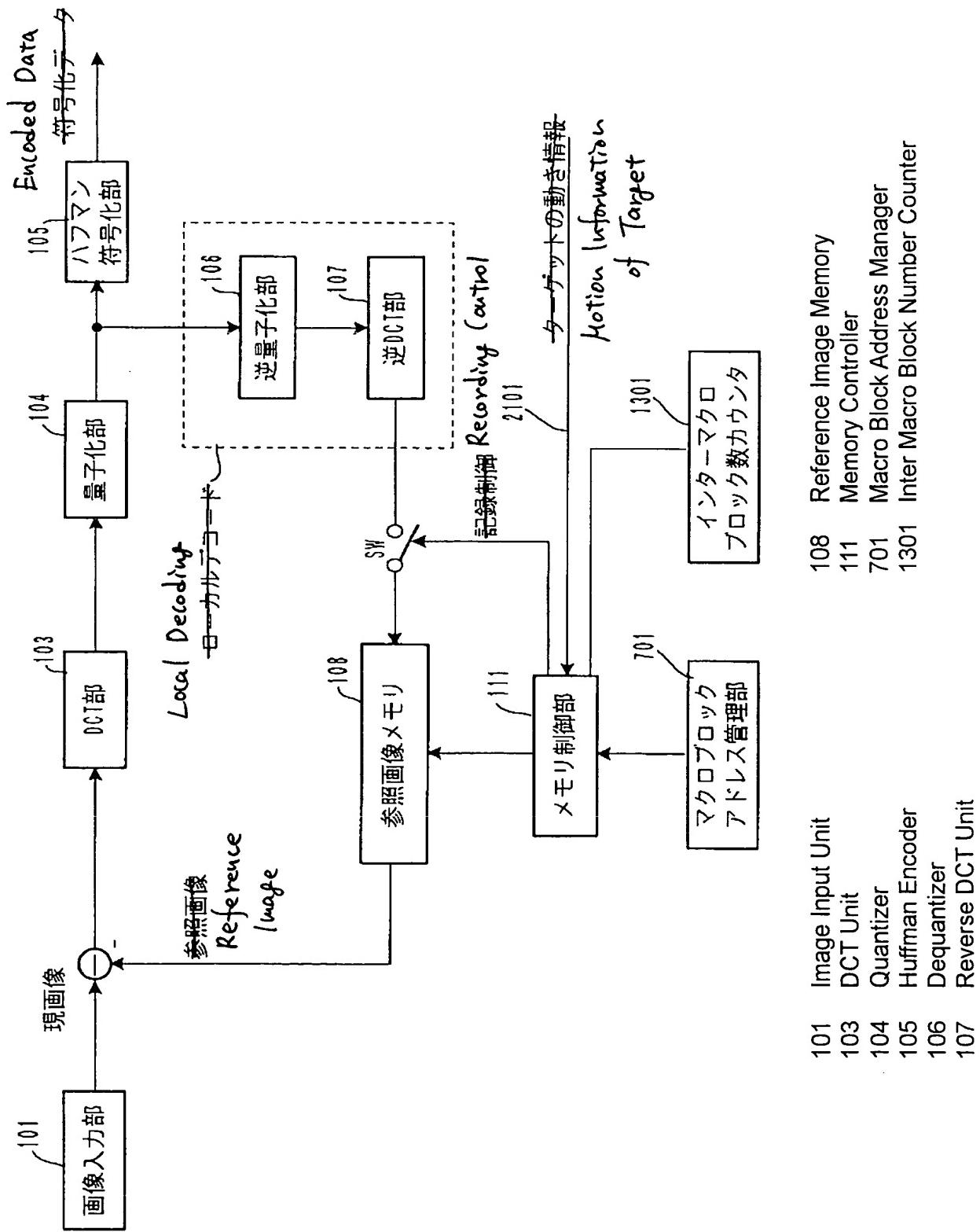


図20 Fig. 20



101	Image Input Unit
103	DCT Unit
104	Quantizer
105	Huffman Encoder
106	Dequantizer
107	Reverse DCT Unit
108	Reference Image Memory
111	Memory Controller
701	Macro Block Address Manager
1301	Inter Macro Block Number Counter

図21 Fig.21

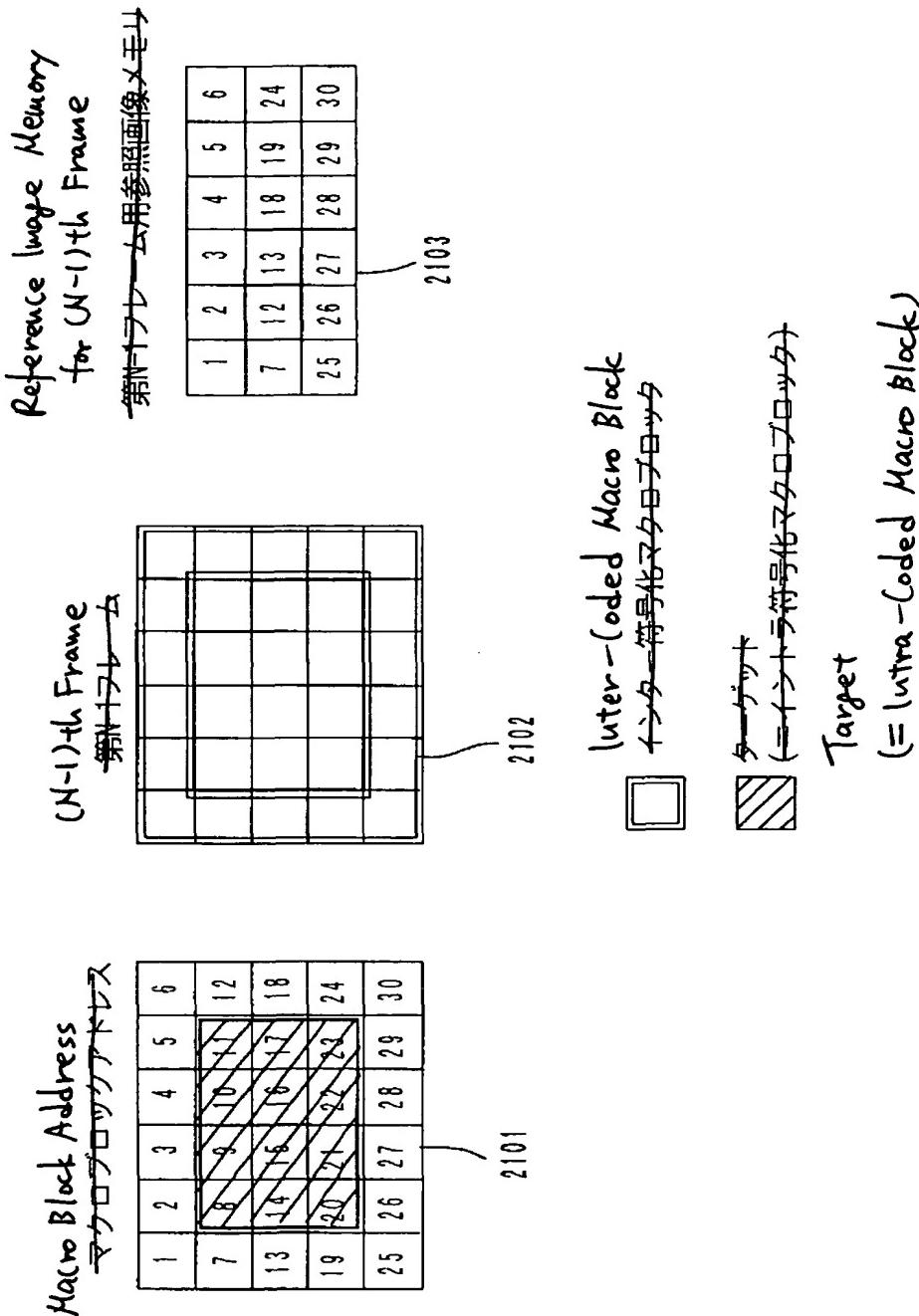


図22 Fig. 22

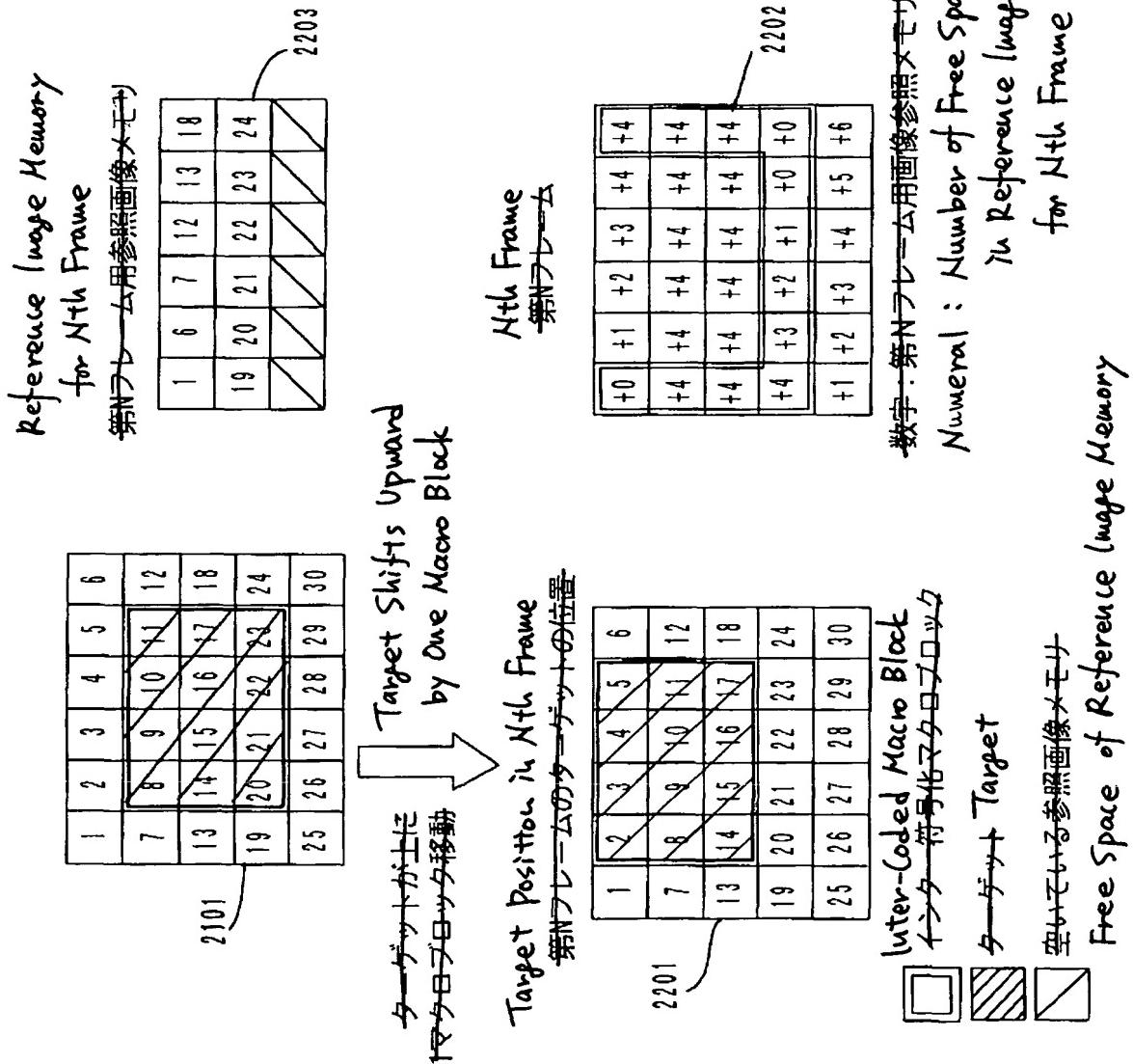


図23 Fig.23

Reference Image Memory
for Nth Frame

第Nフレーム用参照画像メモリ

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

2301

Target Shifts Leftward
by One Macro Block

Target Position in Nth Frame
第Nフレームにおける位置

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

2301

Inter-Coded Macro Block
マクロブロック間接示す



Target
ターゲット

空いてる参照画像メモリ

Free Space of Reference Image Memory
for Nth Frame

+0	+0	+0	+0	+0	+1
+2	+2	+2	+2	+1	+2
+3	+3	+3	+3	+2	+3
+4	+4	+4	+4	+3	+4
+4	+4	+4	+4	+4	+5

2302

Number of Free Space
in Reference Image Memory
for Nth Frame

数字: 第Nフレーム用画像参照メモリの記録余裕数

Numerical : Number of Free Space
in Reference Image Memory

for Nth Frame

</p

図24 → Fig. 24

Reference Image Memory

for Nth Frame

第Nフレーム用参照画像メモリ

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

2403

→ テーブルを下に移動
 Target Shifts Downward
 by One Macro Block

Target Position in Nth Frame

第Nフレームの位置

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

2401

Outer-coded Macro Block
 フィールドマクロブロックTarget
 テーブル

空いている参照画像メモリ

Free Space of Reference Image Memory
 for Nth Frame

数字：第Nフレーム用画像参照メモリの記録余裕数

Numerical : Number of Free Space
 In Reference Image Memory
 for Nth Frame

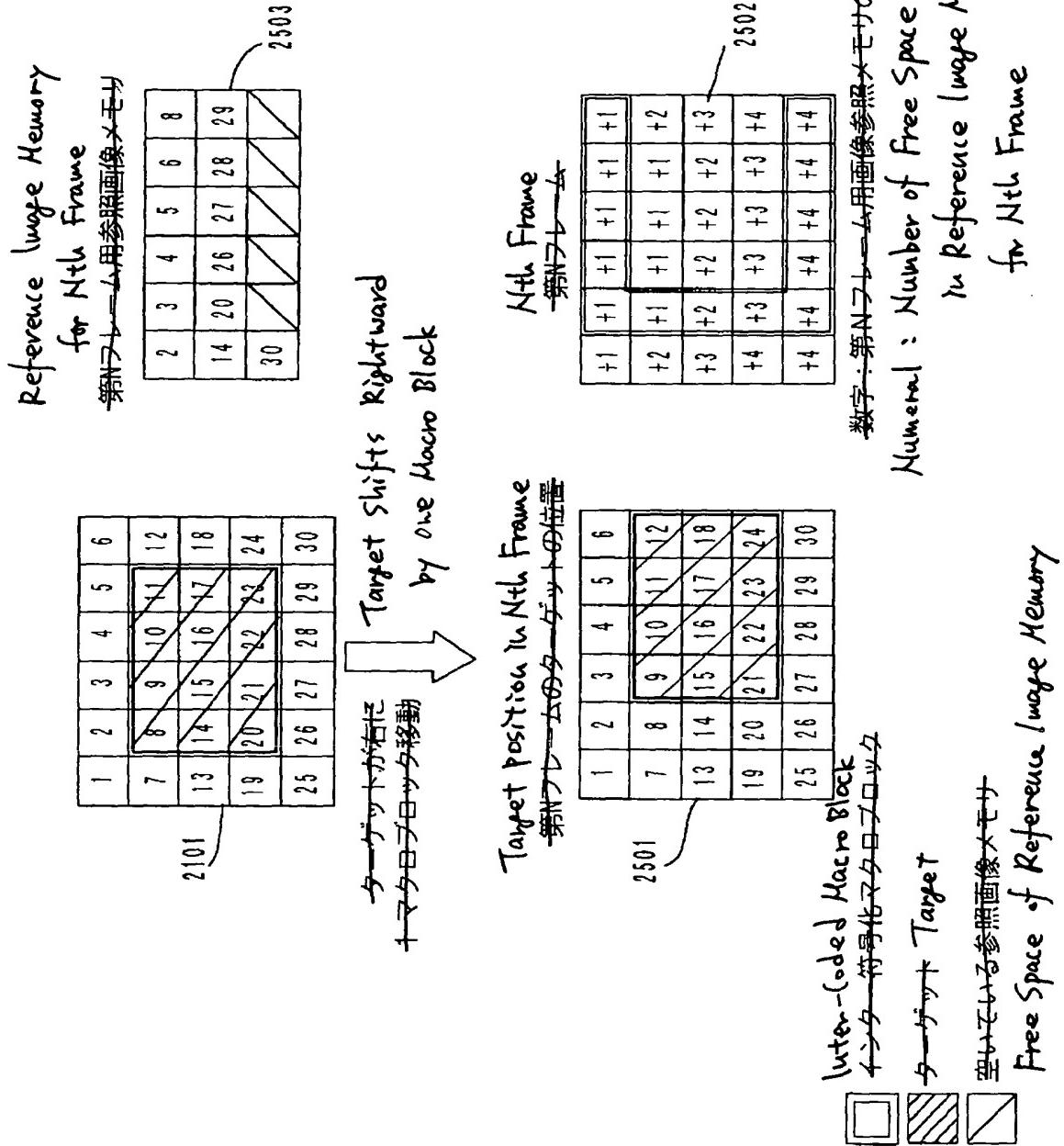
+1	+2	+3	+4	+5	+6
+6	+5	+4	+3	+2	+2
+2	+2	+2	+2	+2	+2
+2	+2	+2	+2	+2	+2
+2	+3	+4	+5	+6	+6

2402

数字：第Nフレーム用画像参照メモリの記録余裕数

Numerical : Number of Free Space
 In Reference Image Memory
 for Nth Frame

図25 Fig. 25



十図26 Fig. 26

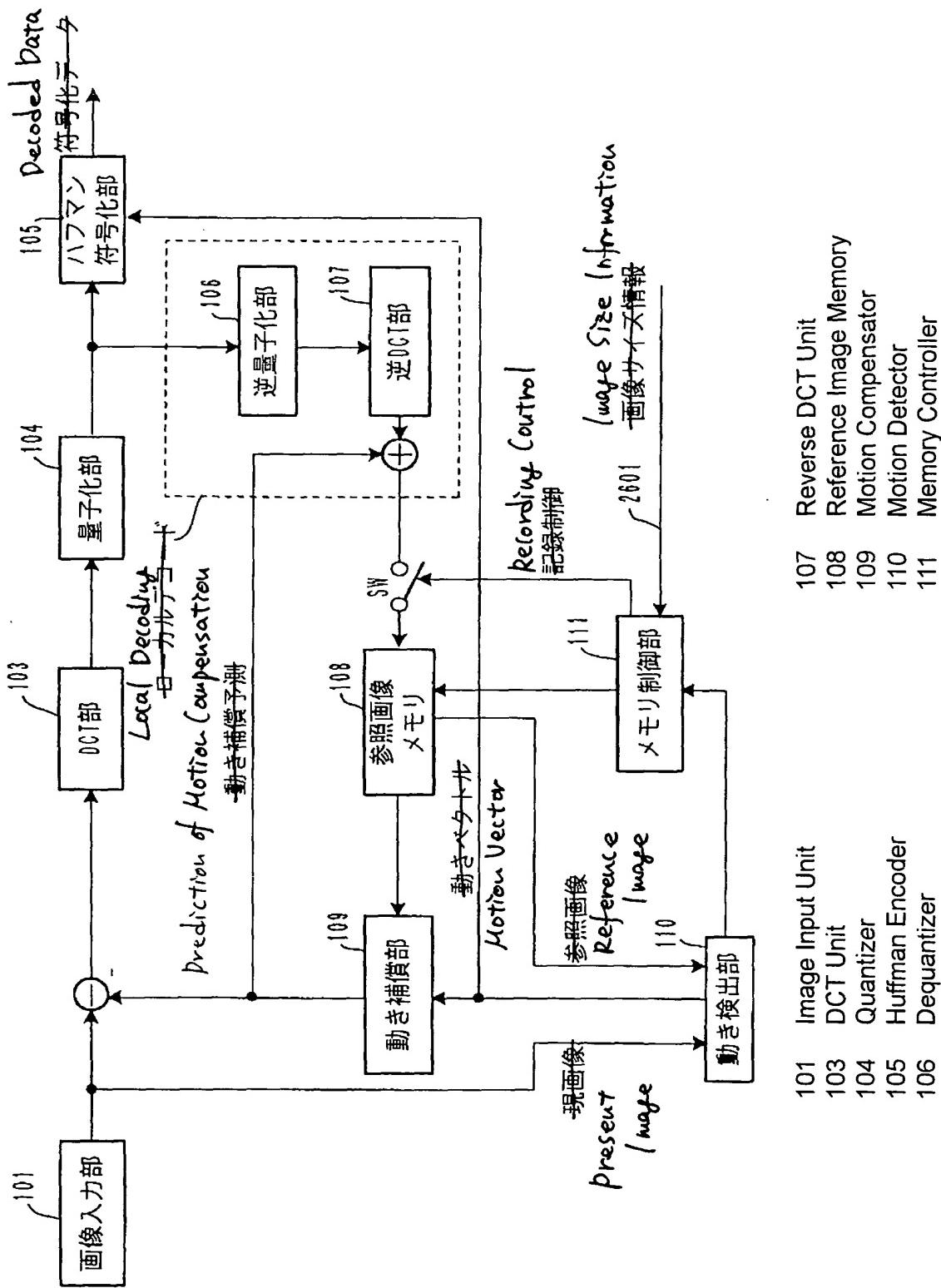
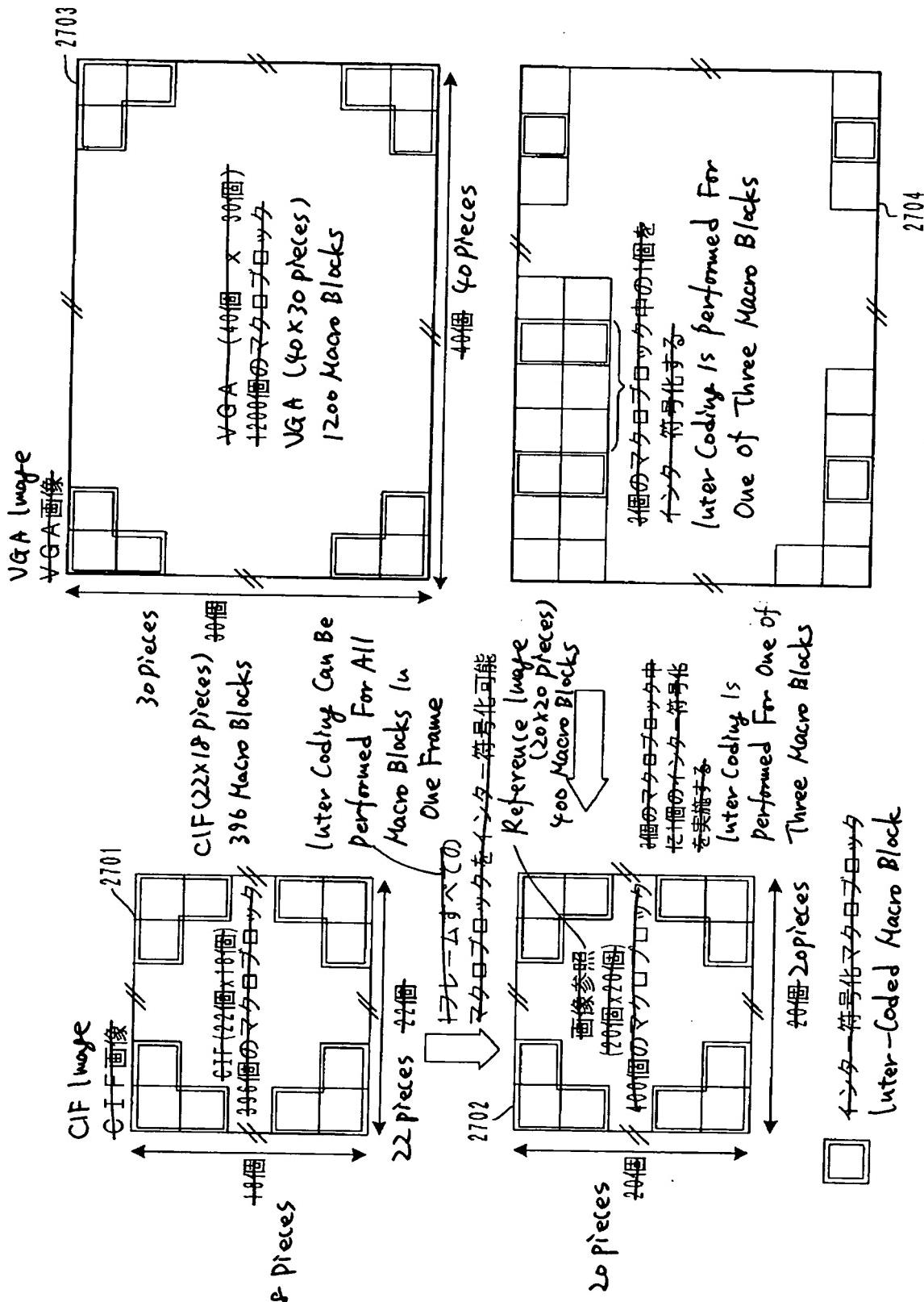
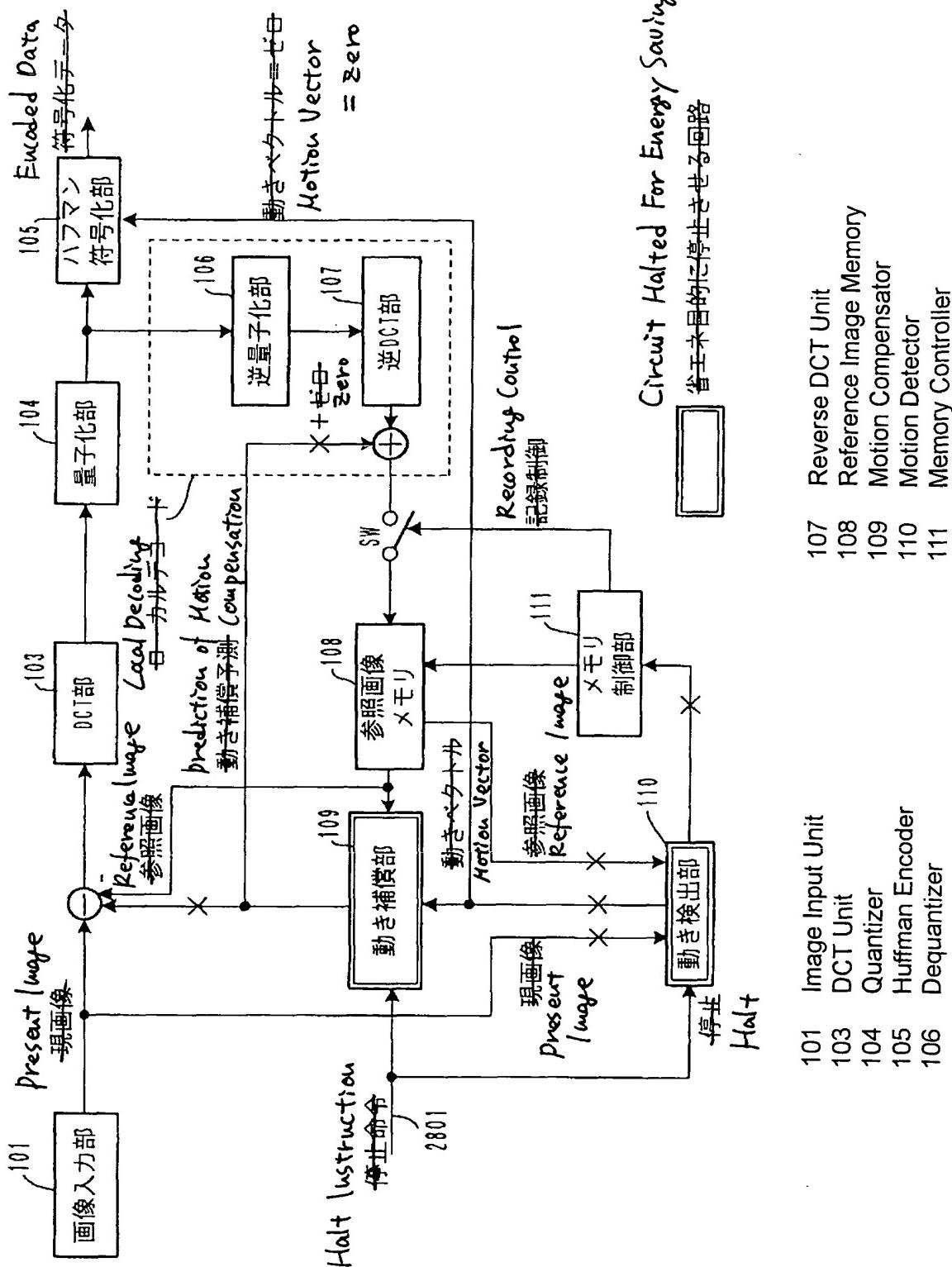


図27 Fig. 27

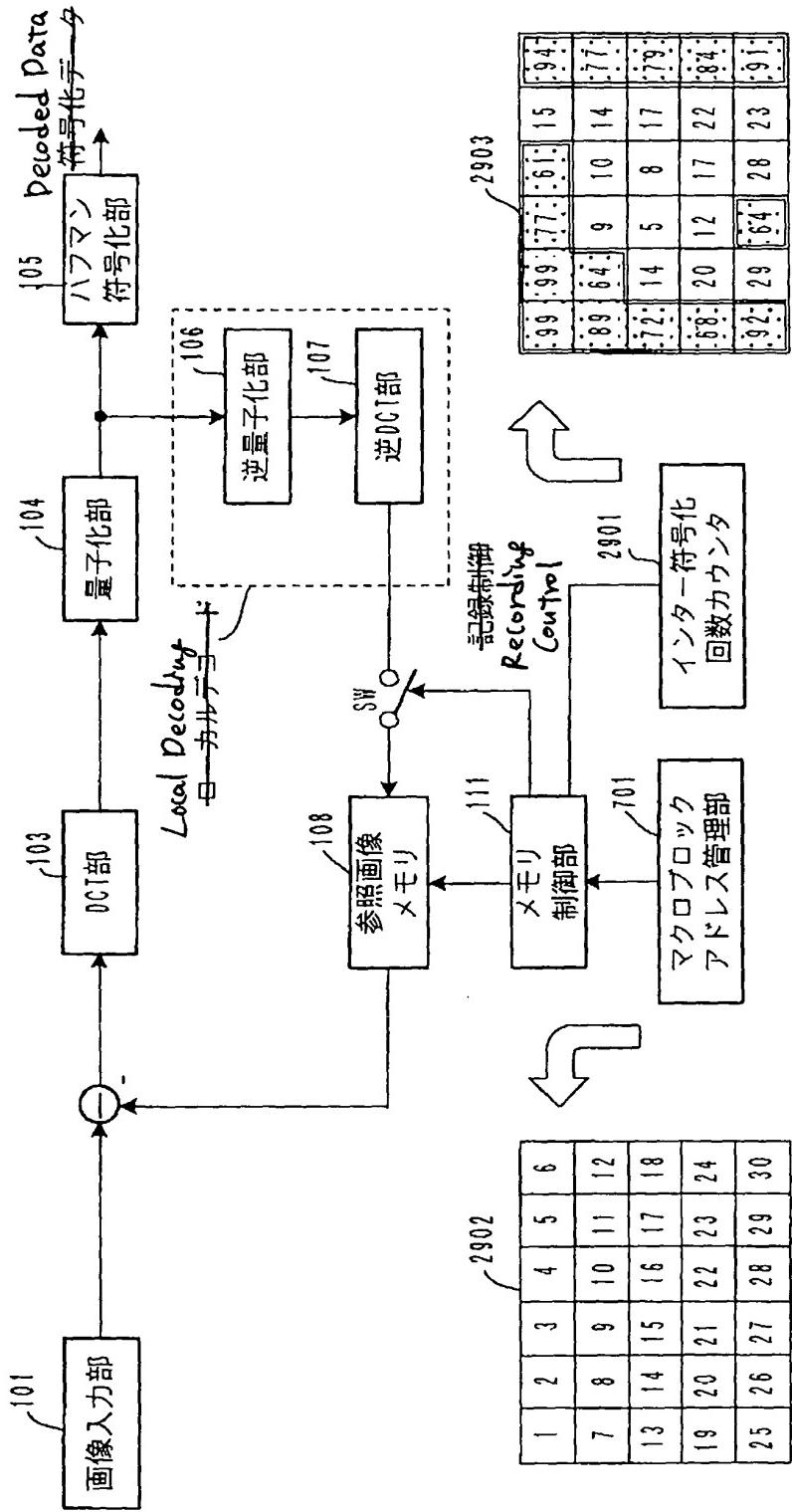


十図28 Fig. 28



- | | |
|-----|------------------------|
| 101 | Image Input Unit |
| 103 | DCT Unit |
| 104 | Quantizer |
| 105 | Huffman Encoder |
| 106 | Dequantizer |
| 107 | Reverse DCT Unit |
| 108 | Reference Image Memory |
| 109 | Motion Compensator |
| 110 | Motion Detector |
| 111 | Memory Controller |

~~(图20)~~ Fig. 29



→ 符号化するマスク位置（例：1-5個）

Inter Coding Macro Block position
(Example 15 pieces)

- | | |
|--------------------------------|------|
| Image Input Unit | 101 |
| DCT Unit | 103 |
| Quantizer | 104 |
| Huffman Encoder | 105 |
| Dequantizer | 106 |
| Reverse DCT Unit | 107 |
| Reference Image Memory | 108 |
| Memory Controller | 111 |
| Macro Block Address Manager | 701 |
| Inter Coding Frequency Counter | 2901 |

十図30 Fig. 30

